

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions of claims in the application.

1-14. (Cancelled)

15. (Previously Presented): A process for extracting a rare earth metal ion from an aqueous solution containing a rare earth metal ion, comprising using as an extraction agent the phosphonamide compound represented by the general formula [1]



(wherein R^1 represents an alkyl group, a cycloalkyl group, an alkenyl group, a cycloalkenyl group, an alkynyl group, an aryl group, an aralkyl group, or a heterocyclic group, with the proviso that each group may have a substituent; R^2 represents a hydrogen atom, an alkyl group, a cycloalkyl group, an alkenyl group, a cycloalkenyl group, an aryl group, an aralkyl group, or a heterocyclic group, with the proviso that each group may have a substituent; R^3 represents a hydrogen atom, an alkyl group, a cycloalkyl group, an alkenyl group, a cycloalkenyl group, an aryl group, an aralkyl group, or a heterocyclic group, with the proviso that each group may have a substituent; and the two R^3 s may be united to form an alkylene group, a cycloalkylene group or an arylene group).

Amendment under 37 C.F.R. §1.114
Attorney Docket No.: 082460
Application No.: 10/506,424

16. (Original): The extraction process according to claim 15, wherein an organic solvent is used for extraction.

17. (Previously Presented): The extraction process according to claim 16, wherein the organic solvent is not completely miscible with water.

18. (Original): The extraction process according to claim 15, wherein an aqueous solution containing a rare earth metal ion, a phosphonamide compound represented by the general formula [1] and an organic solvent which is not completely miscible with water are mixed and contacted, whereby the metal ion is transferred to the organic solvent layer.

19. (Original): A process for back-extracting a rare earth metal ion, characterized by that the organic solvent layer comprising the extracted rare earth metal ion by the extraction process according to claim 18 is mixed and contacted with a water, whereby the metal ion is transferred to the aqueous layer.

20. (Original): The back-extraction process according to claim 19, wherein the water for mixing and contacting is a weakly acidic or acidic water.

21-26. (Cancelled)

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27. (New): The extraction process according to claim 18, wherein said aqueous solution containing a rare earth metal ion has a pH value of 7 or lower.

28. (New): The extraction process according to claim 18, wherein a volume ratio of said aqueous solution containing a rare earth metal ion to said organic solvent and phosphonamide compound is 0.001:1 to 100:1.